

### Abstract of the Disclosure

A gas decomposer formed from a porous material to decompose a carbon-containing raw material carried on a gas flow and to synthesize a carbon nanotube from the decomposed carbon-containing raw material is provided as a member suitable for use in carbon nanotube manufacture that offers a user a choice of using, or not using, a metal catalyst according to the user's need in vapor phase growth, which allows successive operation and which is therefore fit for mass production. Also provided are carbon nanotube manufacturing apparatus and method which use the gas decomposer.